

## REMARKS

Claims 1, 3-7, and 12-20 are pending in the application. Applicant respectfully requests reconsideration of this application.

Rejection of Claims 1, 3-4, 7, 12-14, and 16-18 under 35 U.S.C. § 103(a) as being unpatentable over US 2004/0147276 (Gholmieh) in view of US 2002/0142791 (Chen)

The Office Action has cited Gholmieh (US 2004/0147276) for a 103(a) rejection of claims 1-4, 7-9, 11-14, and 16-18. The filing date for the cited reference Gholmieh (US 2004/0147276) is December 16, 2003 which is three months after the September 16, 2003 filing date of the application under consideration. Therefore, Applicant understands that the related provisional patent application serial no. 60/433937, filed on December 17, 2002, is the true basis for the rejection. Applicant has reviewed and considered Gholmieh-Provisional (60/433937) as well as Gholmieh (US 2004/0147276) in order to clarify the differences between Gholmieh-Provisional (60/433937) and Gholmieh (US 2004/0147276).

Applicant respectfully traverses the rejection of independent claims 1, 12, and 16.

Applicant respectfully submits that the combination of Gholmieh and Chen does not teach or suggest all the claim limitations as set forth in independent claims 1, 12, and 16. For example, independent claims 1, 12, and 16 recite “wherein the communication channel variance condition is at least one of a primary pilot power variance, fading period and fade depth estimate, or a peak-to-average estimate within an adaptive measurement interval” which is not taught or suggested in the combination of Gholmieh and Chen.

Gholmieh is directed towards a method for reducing signaling associated with frequent reporting of power headroom. According to Gholmieh, the radio base station (RBS) receives infrequent periodic full reports from a mobile station that indicates the current power headroom of the mobile station. The RBS tracks changes in the mobile station's headroom over the interval between full reports based on reverse link power control commands sent by it, or based on power control decision feedback from the mobile station. See Gholmieh Abstract.

Chen is directed towards a method for efficient power control between base station and mobile stations. Chen suggests determining a duty cycle of a communication channel and comparing the determined duty cycle with a duty cycle threshold. Chen further suggests adjusting the power level based on the comparison. See Chen Abstract.

The office action on page 4 states that “Gholmieh does not teach determining, by the mobile station, a communication channel variance condition, wherein the communication channel variance condition is at least one of a primary pilot power variance, fading period and fade depth estimate, or a peak-to-average estimate within an adaptive measurement interval. Chen, which also teaches power control in a CDMA system, teaches determining, by the mobile station, a communication channel variance condition, wherein the communication channel variance condition is at least one of a primary pilot power variance, fading period and fade depth estimate, or a peak-to-average estimate within an adaptive measurement interval (Section 0025 lines 14-25).”

The Office Action specifically refers to Chen’s pilot, paging, sync, or traffic channel’s measurement of S/I as describing or being analogous to Applicant’s communication channel variance condition, wherein the communication channel variance condition is at least one of a primary pilot power variance, fading period and fade depth estimate, or a peak-to-average estimate within an adaptive measurement interval. This analogy is, however, a mischaracterization of Chen.

Chen’s measurement of S/I of pilot, paging, sync, or traffic channels can not be equated to Applicant’s determining primary pilot power variance, fading period and fade depth estimate, or a peak-to-average estimate within an adaptive measurement interval because of the following reasons. S/I of any received signal/channel is one instantaneous sample of the channel condition and reflects the channel condition at that particular instant of time. Whereas, Applicant’s communication channel variance condition (primary pilot power variance, fading period and fade depth estimate, or a peak-to-average estimates) is determined over an adaptive measurement interval and reflects the channel condition changes over a period of time.

As an example, say that the S/I for channel A at time instants t1, t2, t3, and t4 is [3, 1, 1, 3] and the S/I for channel B at time instants t1, t2, t3, and t4 is [2, 2, 2, 2]. Applicant’s communication channel variance condition (primary pilot power variance, fading period and fade depth estimate, or a peak-to-average estimates) at the same time instants for channel A would be [1, 2, 1, 1.5] and for channel B would be [0, 0, 0, 1]. The given S/I in the example suggest that the channels A and B have similar average conditions (e.g., an average of 2 across the four time instants), whereas the communication channel variance condition (primary pilot power variance, fading period and fade depth estimate, or a peak-to-average estimates) suggests that a channel

variance condition of channel A is higher than a channel variance condition of channel B. Therefore, S/I can not be equated to channel variance condition (primary pilot power variance, fading period and fade depth estimate, or a peak-to-average estimates). Thus, Chen is not applicable to claims 1, 12, and 16.

Further, Applicant respectfully submits that Gholmieh and Chen, taken alone or in combination, do not teach or suggest the features as set forth in Applicant's dependent claims. Applicant respectfully disagrees with the statement on page 6, of the Office Action that "Regarding Claims 3, 13 ... Gholmieh further teaches wherein the mobile station determines a maximum data rate based on the headroom value (Sections 0010, 0036) and sends the maximum data rate to a base station (Sections 0010, 0036)." Applicant respectfully asserts that this is a mischaracterization of Gholmieh. Gholmieh fails to disclose the above limitation. In Gholmieh the base station uses the stored headroom information to "grant" or "not to grant" higher data rates to the selected mobile stations. Gholmieh suggests using the headroom to determine whether the data rate can be increased or not ("YES" or "NO"), but nowhere does Gholmieh determining a maximum data rate. See Gholmieh, para [0010] and [0036]. Thus, Gholmieh does not show or suggest "the mobile station determines a maximum data rate based on the headroom value" and "send[ing] the maximum data rate to a base station" as recited in Applicant's dependent claims 3 and 13.

Similarly, Applicant respectfully disagrees with the statement on page 7 of the Office Action that "Regarding Claims 4, 14 ... Gholmieh further teaches wherein the mobile station determines a maximum data rate based on the headroom value (Sections 0010, 0036) and sends the maximum data rate to a base station (Section 0010)." Applicant respectfully asserts that this analogy is a mischaracterization of Gholmieh. As explained above, in Gholmieh the base station makes the decision regarding the data rate of the mobile station. Thus, Gholmieh does not show or suggest "the mobile station determines a maximum data rate based on the headroom value" and "send[ing] a rate adjustment request to a base station" as recited in Applicant's dependent claims 4 and 14.

For the above reasons, Applicant submits that independent claims 1, 12, and 16 and dependent claims 3-4, 7, 13-14, and 17-18 are not obvious in view of the combination of Gholmieh and Chen, and therefore that the rejection of claims 1, 3-4, 7, 12-14, and 16-18 under 35 USC § 103(a) should be withdrawn.

Rejection of Claims 5-6, 15, and 19-20 under 35 U.S.C. § 103(a) as being unpatentable over US 2004/0147276 (Gholmieh) in view of US 2002/0142791 (Chen) and further in view of US 6,563,810 (Corazza).

Corazza fails to overcome the deficiencies of Gholmieh and Chen, because Corazza also does not show or suggest “wherein the communication channel variance condition is at least one of a primary pilot power variance, fading period and fade depth estimate, or a peak-to-average estimate within an adaptive measurement interval” as recited in independent claims 1, 12, and 16. Corazza uses a maximum power which is reduced by the headroom power to provide for power control variations. However, for the case of battery-limited condition, Corazza chooses the lesser power denoted by  $P(R)$ .  $P(R)$  is a transmit value selected for reliable transmission and it does not contain any headroom or margin for power control variations. See Corazza, col. 6 lines 30-50.

Dependent claims 5-6, 15, and 19-20 depend from, and include all the limitations of their respective independent claims 1, 12, and 16. Therefore, Applicant respectfully requests reconsideration and withdrawal of the rejection of claims 5-6, 15, and 19-20 under 35 U.S.C. 103(a) as being unpatentable over Gholmieh, Chen, and Corazza is respectfully requested.

Conclusion

Applicant respectfully requests that a timely Notice of Allowance be issued in this case. Such action is earnestly solicited by the Applicant. Should the Examiner have any questions, comments, or suggestions, the Examiner is invited to contact the Applicant’s attorney or agent at the telephone number indicated below.

Please charge any fees that may be due to Deposit Account 502117, Motorola, Inc.

Respectfully submitted,

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